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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,596	03/21/2005	Marco Winter	PD020096	8255
24498 7590 01/24/2008 THOMSON LICENSING LLC Two Independence Way Suite 200 PRINCETON, NJ 08540			EXAMINER RADOSEVICH, STEVEN D	
			ART UNIT 2117	PAPER NUMBER
			MAIL DATE 01/24/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,596	Applicant(s) WINTER ET AL.	
	Examiner Steven D. Radosevich	Art Unit 2117	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/15/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 14-28 are present within this initial examination.

Priority

Acknowledgment is made that foreign priority is claimed, and as such the date 9/27/2002 is being used within this initial examination. Priority is dependent from PCT/EP03/10235.

Information Disclosure Statement

Acknowledgment is made that an Information Disclosure Statement (IDS) was provided prior to this initial examination and as such has been fully considered and reviewed at this time.

Drawings

The drawings do not appear to have any issues at this time that would require objection and/or correction. Therefore, the drawings are accepted at this time since no issues appear at this time.

Claim Objections

Claim 21 is objected to because of the following informalities:

The wording "comprizing" is believed to be a misspelling of the word "comprising" and therefore is being treated as such.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 26 and 28, these claims identify an apparatus for performing a method without identifying the components of the apparatus. Therefore the claims are indefinite since they fail to point out the subject matter, being that of the components of the apparatus, which is regarded as the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 14-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al (U.S. Patent 7251760 B2).

1. As per claim 14, Kim teaches a method for recording a data stream on a storage medium, wherein the data stream is recorded in data blocks, the method comprising the following steps:

Generating an error correction block for one or more of the data blocks
(ECC in column 1 line 66 – column 2 line 4, figure 1, along with DDL, PDL, and
SDL in figure 1 and column 1 line 66 – column 2 line 4);

Writing the error correction block on the storage medium during recording (ECC and SDL in column 3 lines 49-57, "while reproducing" in column 3 lines 45-57 with column 14-16);

Keeping a spare data area on the storage medium blank ("spare area" or "linear replacement" in column 3 lines 49-54 and figure 3);

Reconstructing a defect data block using the error correction block (figure 3, column 3 lines 45-57); and

Storing the reconstructed data block in the spare data area (column 3 lines 49-54 and figure 3).

2. As per claim 15, Kim teaches wherein the step of reconstructing is performed after finishing recording of the data blocks ("data recorded ... transferred to ... the spare area... 'linear replacement'" in column 3 lines 45-54 and figure 3).
3. As per claim 16, Kim teaches wherein the error correction block is a parity block that covers one or more data blocks (column 1 lines 47-53, column 1 line 60 - column 2 line 4, and figure 1).
4. As per claim 17, Kim teaches wherein an additional parity block covers several groups of data blocks and parity blocks (column 1 lines 47-53, column 1 line 60 - column 2 line 4, and figure 1).
5. As per claim 18, Kim teaches wherein the storage medium is an optical disk having one or more tracks, which are written and read-out using an optical pickup (Optical discs, CD, DVD, CD-ROM, DVD-ROM, CD-R, DVD-R, or CD-RW in column 1 lines 28-36, and Optical pickup 10 in figure 4 and column 6 lines 27, 29, and 64).

6. As per claim 19, Kim teaches wherein the reconstructed data block is stored in one of the spare data areas selected to be close to the defect data block in order to allow replacement of the defect data block with the reconstructed data block with fast jumps of the optical pickup from one track to the other or even without jumps by buffering the spare area during playback (figure 3, column 3 lines 49-54, "linear replacement" in: Abstract, and column 3 line 54).

7. As per claim 20, Kim teaches wherein the reconstructed data block is stored in one of the space data areas selected to be approximately located at a geometrical opposite of the defect block on the optical disk (column 3 lines 58-61).

8. As per claim 25, wherein the blocks are clusters for blu-ray rewritable disc ("Optical discs" in column 1 lines 20-26).

9. As per claim 26, Kim teaches an apparatus equipped to perform the method of claim 14 (column 1 lines 20-26).

10. As per claim 21, Kim teaches a method for playing back a recorded data stream from a storage medium, wherein the data stream has been recorded in data blocks, the method comprising the following steps:

Reading payload blocks and a replacement block for a defect payload block (figure 3 with column 3 lines 45-57, and "linear replacement" in the abstract and column 3 line 54);

Recovering the defect block by using the read replacement block ("spare area" in figure 3 and column 3 line 52, and "linear replacement" in the abstract and column 3 line 54);

Skipping the already read blocks (figure 3, "linear replacement" in column 3 line 54 and abstract); and

Continuing the reading of not yet read payload blocks (figure 3 and "linear replacement" in column 3 line 54 and abstract).

11. As per claim 22, wherein the payload blocks are read until the defect block is detected and wherein after detection of the defect block it is jumped back to the replacement block of the defect payload block and the replacement block is read (figure 3, column 3 lines 45-56, and "linear replacement" in column 3 line 54 and abstract).
12. As per claim 23, wherein the replacement block is read and buffered and further payload blocks are read until the defect block is detected (figure 3).
13. As per claim 24, wherein the read payload blocks are buffered and wherein a defect block is skipped and the following payload blocks and parity blocks are read and buffered and wherein the defect payload block is reconstructed by using the buffered blocks and the parity block ("linear replacement" in column 3 lines 45-57 and abstract).
14. As per claim 27, wherein the blocks are clusters for a blu-ray rewritable disc ("Optical discs" in column 1 lines 20-26).
15. As per claim 28, an apparatus equipped to perform the method of claim 21 (column 1 lines 20-26).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 23 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (U.S. Patent 7251760 B2) as applied to claim 21 above, and further in view of Gotoh et al (U.S. Publication 20010043800 A1).

16. As per claims 23 and 24, Kim teaches as described above the reading, recovering, skipping, and continuing in detail.

Kim may not specifically teach wherein the replacement block is read and buffered and further payload blocks are read until the defect block is detected.

However Gotoh teaches wherein during playback of real-time data utilizes a buffer for processing and file management (see figure 10A and paragraph 0028).

Therefore one of ordinary skill within the art at the time the invention was made could have been motivated to modify Kim to include a buffering the replacement block until the defect block is detected so as to enable real-time playback and advanced file management as taught by Gotoh.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- i. Park et al (U.S. Patent 7221631 B2, with common assignee with Kim et al (7251760 B2)) discloses linear replacement with spare area and ECC, see figures 2-3 for example.
- ii. Nakane et al (U.S. Publication 20020031369 A1) discloses linear replacement with spare area and ECC; wherein returns or jumps back to subsequent locations within the linear replacement method are done to continue processing the data (skipping over already processed data). See paragraph 0019 for example.
- iii. Ko (patent 6674697 B1, and a number of the references cited within the 892) discloses linear replacement, real-time processing, ECC, and spare area.
- iv. Sasaki et al (U.S. Patent 6742147 B1) discloses linear replacement, real-time recording, and AV files on optical discs.
- v. Jeong et al (U.S. Patent 6385736 B1) discloses linear replacement within optical recoding media.
- vi. Schadeegg et al (U.S. Patent 5844911) discloses space sectors and linear replacement mapping techniques.
- vii. Leonhardt et al (U.S. Patent 5719717) discloses linear replacement within data storage.

- viii. Chung et al. (6775803 B1) discloses buffering within block replacement by spare area.
- ix. Saitoh et al (U.S. Patent 6189110 B1) discloses spare area being approximately located at a geometrical opposite of the defect block see figure 6 for example.
- x. Tsuboi et al (U.S. Patent 6043945) discloses recording media error detecting with ECC, temporary storing (buffer), and replacement for spare sectors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Radosevich whose telephone number is 571-272-2745. The examiner can normally be reached on 9am-5:30pm.

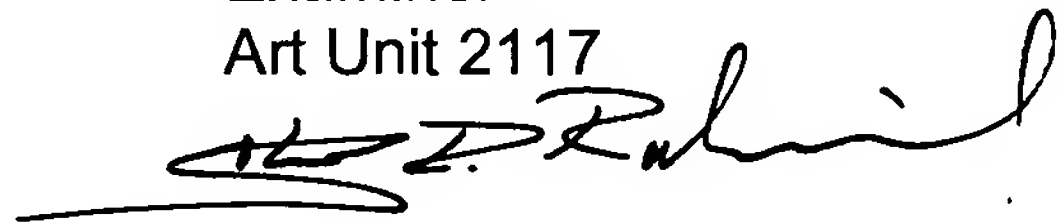
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques H. Louis can be reached on 571-272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

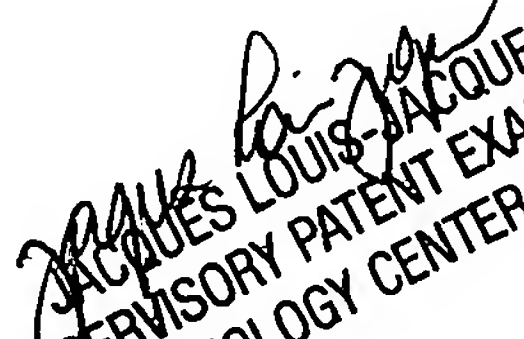
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Steven D. Radosevich
Examiner
Art Unit 2117




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